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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,513	10/19/2001	William L. Detore	TY2002US	3091

7590 10/31/2003

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EXAMINER	
JOHNSON, VICKY A	

ART UNIT	PAPER NUMBER
3682	

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/035,513	DETORE ET AL.	
	Examiner	Art Unit	
	Vicky A. Johnson	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 5-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 5-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1, 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claims 1 and 5, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1, 5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kimura et al (6,299,718).

Kimura et al disclose a hybrid composite flywheel rim comprising: a cylindrical fiber structure (see Fig 2), at least two different types of fibers (col. 3 lines 57-67) impregnated with a thermosetting resin (col. 5 lines 42-53), said two different fibers having different elastic moduli (col. 3 lines 57-67).

Re claim 5, Kimura et al show fibers having different elastic moduli (col. 3 lines 57-67), said fibers including carbon fiber, glass fiber (col. 3 lines 57-67), said fibers fixed in a matrix of thermosetting resin (col. 5 lines 42-53).

Re claim 7, Kimura et al show an annular structure having a plurality of zones (col. 9 lines 4-31), each with multiple fiber layers in a resin matrix (col. 5 lines 42-53), each said fiber layer having a mixture of carbon fiber tows and glass fiber tows at a ratio of tows that is constant in each layer of any single zone (col. 9 lines 4-31), and said ratio incrementally increases zone-by-zone radially toward outside zones of said rim (col. 9 lines 11-30).

6. The process of forming the device is not germane to the issue of patentability of the device itself. Therefore, the limitations "wound in an annulus on a mandrel", " said fiber is distributed in said cylindrical fiber wound structure as bands of tows, each tow having only a single type of fiber, said tows lying in a lay-up pattern that is defined by the correlation between lead rate per mandrel revolution and winding length to produce a random distribution of the first fiber type amongst the second fiber type macroscopically", "wound in a fiber band with a predetermined lead rate into said annular structure", "said predetermined lead rate, in correlation with the winding length, ensures that said carbon fiber tows le in a macroscopically uniform distribution in each zone", and "carbon fiber tows lie in a macroscopically uniform distribution in each zone by controlling the correlation between lead rate of the fiber band as it is wound onto the mandrel per mandrel revolution and the winding length" has not been given any patentable weight.

Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). (see also, MPEP 2113).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al (6,299,718).

Kimura et al disclose a hybrid composite flywheel rim as claimed except for the following equation being satisfied: $WL=(N + B/A)\cdot LR$.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the strength of the flywheel, since has been held to be with in the general skill of a worker in the art to achieve optimization through routine experimentation. *In re Boesch,* 205 USPQ 215 (CCPA 1980); *In re Svala*, 70 USPQ 412 (CCPA 1946).

Response to Arguments

Some further comments regarding the Applicant's remarks are deemed appropriate.

The Applicant requested that a citation regarding the process limitations in the claims, that have not been given patentable weight, be provided. As cited above, the MPEP states that the claims must be structurally distinguishable from the prior art. (see MPEP 2113).

It is further argued by the Applicant that the formula of claim 6 cannot be determined by routine experimentation. The optimum winding length can be changed through routine experimentation by changing the lead rate. A worker with a general skill in the art is able to achieve these results.

The Applicant's remarks have been accorded due consideration, however, they are not deemed fully persuasive.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (703) 305-3013. The examiner can normally be reached on Monday-Thursday (7:00a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

vaj 10/29/03

Thomas R. Hannon
Primary Examiner